DOCUMENT RESUME

ED 220 404 SP 020 413

AUTHOR Haigh, Neil
TITLE There is More to Teaching Than Meets the Eye: Implications for Teacher Education.
PUB DATE Jul 82
NOTE 23p.; Paper presented to the Annual Conference of the South Pacific Association of Teacher Education (Victoria, New Zealand, July 6-9, 1982).

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Cognitive Style; *Critical Thinking; Decision Making; Foreign Countries; Higher Education; *Learning Processes; *Self Evaluation (Individuals); Teacher Attitudes; Teacher Behavior; Teacher Education; Teacher Education Curriculum; *Teacher Effectiveness; Teaching Methods
IDENTIFIERS *Waikato College of Teacher Education (New Zealand)

ABSTRACT

Teachers' thinking and thought processes should be regarded as essential subject matter for teacher preparation courses concerned with teaching and teacher effectiveness. A second-year course in "Learning and Teaching," offered at Waikato College of Teacher Education (New Zealand) is based on two interrelated premises. The first premise is that, before they begin a systematic study of particular teaching modes, students must be helped to examine: (1) their own and others' beliefs about the nature and relationship of teaching and learning; (2) what research can and cannot find out about effective teaching; and (3) ways of analyzing the teaching process. The second premise is that the beliefs about teaching and learning, which are examined in the Waikato course, must include those of the teachers who teach the course. The course encourages student teachers to consider: (1) the things people think about and do when teaching and learning; (2) the relationship between teaching and learning; (3) conditions that teachers may take account of, or attempt to influence or arrange; (4) factors that might account for similarities and differences in the way teachers teach; and (5) factors that may help or hinder teachers' attempts to be effective. Feedback on the course from students has indicated that many discovered a personal reconceptualization of teaching and its relationship with learning. (JD)

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THERE IS MORE TO TEACHING THAN MEETS THE EYE : IMPLICATIONS FOR TEACHER EDUCATION

NEIL HAIGH

UNIVERSITY OF WAIKATO

U.S. DEPARTMENT OF EDUCATION
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Paper presented to the Annual Conference of the South Pacific Association of Teacher Education, Chisolm Institute of Technology, Frankston, Victoria. 6 - 9 July, 1982

SP 020 413

Like many current programmes in teacher education, the one offered by the Waikato College of Teacher Education in Hamilton, New Zealand, is using school-based components in education and curriculum courses as a means of giving more reality to student learning experiences. The Waikato College has attempted also to develop a coordinated programme for all professional studies. Thus education theory courses are meant to help students build up a set of principles that are basic to the planning-teaching-evaluation process, and these principles are supposed to be demonstrated, elaborated, personally 'tried out' and evaluated within the ongoing programme in curriculum studies and student teaching.

As evidenced by several formally constituted evaluations, the attempt at Waikato to coordinate professional studies has not been a success. Basic teaching principles have not been clearly identified or agreed to; there is unnecessary overlap and repetition of subject matter across courses; and students often receive conflicting guidance as to which teaching behaviours they should try to develop. In addition, many students still tend to model uncritically the practices of supervising teachers in the College's cooperating schools, and develop only a global appreciation of a fairly narrow range of teaching modes and skills.

Some Waikato staff now believe that the difficulties just described might well be overcome by assigning a pivotal role within the college programme as a whole to a second-year course in Learning and Teaching. The primary thrust of this course is how to handle the teacher effectiveness problem, given that research has produced neither a comprehensive theory of teaching, nor a set of generally accepted criteria for judging teaching competence.

The present paper, therefore has two main purposes. First, it provides an overview of the nature of the Waikato course in Learning and Teaching. Second, it outlines the case that we believe exists for making a study of teacher thinking a necessary component of a course on teaching and teacher effectiveness. Third, it describes in some detail the learning experiences associated with one phase of the course during which aspects of the 'mental life' of teachers receive particular attention.

THE LEARNING AND TEACHING COURSE

This course is based on two interrelated premises. The first premise is that, before they begin a systematic study of particular teaching modes, students must be helped to examine: (a) their own and other's beliefs about the nature and relationship of teaching and learning; (b) what research can and cannot tell us about effective teaching; and (c) ways of analysing the teaching process. The second premise is that the beliefs about teaching and learning which are examined must include those of the course teachers. This is not an attempt to propound 'the correct view', but rather to ensure that students know why they are being confronted with certain subject matter and learning activities during the course.

Our own beliefs about learning and teaching come from our attempts to make sense of the findings from three decades of research on teaching, as well as from our personal experiences as classroom teachers and researchers. Thus, for example, to account for the inconclusiveness of research on causal links between teacher behaviour and pupil achievement, we have had to reappraise some of our basic assumptions about teaching and teaching effectiveness. This, in turn, has led us to modify the objectives and programme that we consider appropriate to a course which attempts to help teachers become more effective. Such reappraisal is necessarily on-going as we take into account the emerging findings of studies into previously unresearched of little-researched aspects of teaching (e.g. contextual factors, non-verbal interaction, aptitude-treatment interactions, teachers' implicit theories, teacher thinking and planning). The sections below present a brief review of the current course in Learning and Teaching - the assumptions associated with the course, the course objectives, and the general nature of the programme.

ASSUMPTIONS:

1. *We believe that teaching involves taking account of, trying to influence, and arranging conditions with the intention of helping someone learn.*

Several features of this position should be noted. First, teaching is viewed as a thoughtful activity : it is behaviour associated with the thought in mind (the intention) that learning might be facilitated in someone if conditions are arranged in a certain way. Second, teaching is seen

as involving activities that are sometimes open to view and sometimes hidden. Thus, what teachers think about doing, as well as what they can be seen to be doing, are aspects of 'arranging conditions with the intention that someone learns'. Third, the relationship between teaching and learning is regarded as a 'probabilistic' one since many of the conditons that may help or hinder learning are difficult, if not impossible, to directly arrange. In such circumstances, a teacher can only take the conditions into account, or try to influence them as best s/he can. This leads us to a second assumption associated with the course:

2. *We believe the effective teacher is one (a) who sensitively and flexibly controls the learning conditions that can be arranged, including a wide repertoire of teaching modes and skills; (b) who takes account of the learning conditions that cannot be arranged; and (c) who recognises that teaching effectiveness will depend, in part, on preparedness to experiment with, analyse and evaluate one's own patterns of thought and action.*

Thus the competent teacher is an informed and flexible decision-maker. S/he may be conceived as being somewhat like the professional golfer who not only commands a wide repertoire of games strategies and clubs, but chooses appropriate tactics (particular clubs and particular shots with those clubs) according to a keen perception of conditons in the golfing environment. It must be recognised, of course, that handling a behavioural repertoire is a much simpler matter in golfing than is the case with teaching. Despite what frustrated golfers might say, there is a vast difference between controlling one's behaviours in relation to an inanimate and standardised ball, and in exercising the sensitive control which is required to guide psychologically diverse, ever-changing, and often unpredictable pupils in certain educational directions (Katterns, 1977 : p.26).

OBJECTIVES:

In keeping with the assumptions above, we hope that the Learning and Teaching course will help students to achieve three main goals:

1. *knowledge and understanding of the views that they and others have concerning the nature of learning and teaching, and of teaching effectiveness;*
2. *more sensitive control of an increasing repertoire of teaching modes and their associated skills; and*

3. *attitudes and skills that will encourage and assist them to take responsibility for the evaluation of their own teaching.*

THE PROGRAMME:

Student teachers begin their studies by observing and reflecting on a variety of school and community situations in which learning appears to be going on. As a result of this activity they are alerted to features of both the process and products of learning (learning modes and types of human learning), as well as to the conditions that may have helped or hindered learning on these occasions. We next look more closely at a selection of learning conditions (e.g. attention and motivation, cognitive readiness and information processing, learning style), endeavouring as we do this, to make a strong case for teachers becoming well informed about these conditions, their antecedents and their possible effects.

Our attention then shifts to teachers and teaching. Under the theme of *Looking at Teachers* we consider the following topics: the things that people think about and do when teaching and learning, as opposed to some other activity; the relationship between teaching and learning; conditions that teachers may take account of, or attempt to influence, or arrange; factors that might account for similarities and differences in the way teachers teach; and factors that may help or hinder teachers' attempts to be effective. This section culminates in an examination of past and present efforts to define the qualities of the effective teacher. The inconclusive picture here leads to the presentation of what has become known as 'the SCR MODEL' which aims at helping students help themselves to develop Sensitive Control of Teaching Repertoire (Katterns, 1977: pp.25-26, p.218).

The 'SCR' approach encourages students 'to become their own researchers'. Thus the next theme in the course on *Looking into Teaching* introduces students to interaction analysis techniques, self-evaluation procedures, and practice in assuming the role of a non-judgemental supervisor for other students. These activities are carried out with reference to the discussion approach to teaching. They lead, subsequently, to a teaching and clinical supervision project during a teaching practice period in schools.

Upon the foundations described above, students then study and explore

various ways of handling the major teaching modes that are available to classroom practitioners. Besides the Discussion mode, the range here includes Recitation, Telling and Explaining, Guiding Problem-solving and Inquiry, Modelling, Training and some 'Mixed' modes. Although these teaching approaches are considered in relation to a variety of curriculum areas, special reference is made to students' concurrent courses in the teaching of Mathematics and Language Arts.

THE CASE FOR STUDYING TEACHER THINKING

Over the last three decades, many researchers have studied the behaviours that teachers can be *observed* engaging in as they set about helping others learn. Relatively few, however, have studied that *hidden* aspect of teacher behaviour - teacher thinking. To a large extent, the attention that teacher educators have given to teacher behaviour has mirrored that of the researchers. Thus, when teaching about teaching, they have typically given much more attention to the surface features of teacher behaviour than to apsects of the 'mental life' of teachers. That situation has shown signs of change recently, however, with an increasing number of researchers and teacher educators choosing to study, or to help others study, teacher thinking.

The case that the latter believe exists for studying teacher thinking is based on two contentions. First, that many of the questions and 'practical' concerns that people have regarding the effectiveness of teachers, and how they might be helped to become more effective, can not be answered satisfactorily without information about the mental life of teachers. Second, that many of the conceptual premises and methods which have been associated with the mainstream of research on teaching and teacher education are not appropriate to the study and explanation of teaching. Alternative premises and methods have been proposed which, if accepted, make the thoughts of teachers an essential aspect of the phenomenon of teaching and legitimize the use of methods that will help teachers uncover and reflect on their own patterns of thought as well as action.

These two contentions are now discussed more fully and then summarized briefly are examples of the findings that have emerged from recent studies of teacher thinking and that have clear implications for a course concerned with teacher effectiveness.

LOOKING FOR SOLUTIONS TO PRACTICAL PROBLEMS: As an instance of the practical pay-offs that 'teacher thinking' researchers have anticipated for the findings of their research, I believed that my own research in this area might help me answer certain questions concerning the effectiveness of teacher education courses that I was involved in. Most of these questions arose from my observation that specific teaching behaviours introduced to students during coursework were often not demonstrated by the students in subsequent teaching practice situations. Pre-lesson planning was one teaching activity where this often seemed to occur. Typically using a checklist approach, courses presented students with recommendations about the ingredients of teaching-learning situations which they should ideally think about when planning for lessons (e.g. You should think about the following attributes of the children whenever you plan for lessons). Students were generally expected to fill in prescribed planning records so as to provide evidence that they had thought about these ingredients and that they had been considered in an appropriate sequence (e.g. learning objectives had been specified in performance terms as a first step in the planning process). The evidence that I gained from observations of students in teaching practice situations, from students' 'honest' self-reports of their approach to planning and reflections on my own planning highlighted the fact, however, that these recommended practices were often not adopted. Idiosyncracy as much as similarity seemed to characterize individual students' planning practices.

There were clearly several possible explanations for this situation and each of these, if it proved to be valid, had quite different implications for the design of future coursework on planning. The explanations included the following:

(i) *Teaching within courses may have been ineffective so that some students may not have understood the rationale advanced for a particular planning strategy, or what the strategy entailed;*

(ii) *Some students may have consciously rejected recommended approaches in favour of their own intuitive practices;*

(iii) *Some students may not have realized that there was a discrepancy between their actual planning practices and their intention to employ a recommended approach; and*

(iv) *Some of the assumptions that course teachers had about what, how and when teachers can best think about aspects of teaching situations may have been unreasonable or untenable.*

It was also apparent, however, that the validity of these explanations could not be readily established without having information on hand about the *actual thoughts* of student teachers and experienced teachers during the planning process. In addition, information was required concerning their perception of and beliefs about their own planning practices.

MAINSTREAM RESEARCH ON TEACHING: ASSUMPTIONS, CHALLENGES, SHIFTS: In order to highlight the conceptual and methodological shifts that have recently prompted some researchers, and subsequently teacher educators, to give significantly more attention to teacher thinking, a brief account of the assumptions and methods that were associated with the mainstream of research on teaching through the 1960's and early 1970's is first presented and then the challenges offered to them are detailed.

The dominant research objective in those years was the identification of observable teacher attributes that could be demonstrated to have a consistent relationship with learners' learning. Explanation, prediction, and ultimately control of such relationships were assumed to be tenable objectives for research on teaching. These objectives were associated with the 'Positivist' assumptions that

(a) *people live in a knowable, real world that has an objective reality which is not the creation of individual minds;*

(b) *there is constancy in particular phenomena and regularity about the way events (e.g. learning) are CAUSED by other circumstances (e.g. teaching); and*

(c) *the only kind of reliable knowledge is that which depends on evidence which is verifiable by direct observation.*

From the positivist stance, behaviour occurred when something happened to the person, and thoughts the person might have about future circumstances were regarded as behaviour that followed from particular events rather than as a category of event that might 'call forth' particular behaviours. It followed then that thoughts about future events (e.g. prospective lessons) were not considered explanatory antecedents for behaviour. In addition, as thoughts did not represent phenomena that could be directly observed, they were unlikely to be accepted as legitimate data.

In attempting to explain, predict and control cause-effect relationships between events (including teaching - learning), researchers operating within this framework were required to fulfill certain criteria for their research to be 'good'. For example, if they claimed that causal relationships existed between the behaviours of teacher and learner, they were expected to demonstrate conclusively that change in learning behaviour (the dependent variable) occurred, at least in part, as a consequence of their manipulation of certain teaching behaviours (the independent variable) and was not due to other, unaccounted for, variables. *Control* of variables was an over-riding concern for researchers and, as an ideal, they were required to provide evidence that they had tried to identify, take into account and, where possible, directly control all of the variables that might plausibly influence the dependent variable.

Researchers generally recognized that there were particular problems that might make it more difficult to explain, predict and control social as opposed to natural phenomena (e.g. the more complex nature of social phenomenon, the greater difficulty of making direct observations of phenomena, the less repeatable quality of social phenomena, and the "incalculable element" of human free will which constantly changes the nature of social phenomena; Van Dalen, 1973, pp.30-34) but few queried whether the objectives of prediction and control were in fact tenable for all human behaviour. Not all researchers in education, however, remained immune from forces for change in social science research that were evident during the late 1960's and the 1970's. Over this period, an increasing number of philosophers and social scientists began to argue that 'positivist' assumptions about human nature and scientific method were unsound. The challenges they offered to the assumptions previously noted included the following.

First, as an alternative to the assumption that people should be viewed as 'reactors' whose actions are determined by conditons and events that they can not in principle control, it was proposed (a) that people are, in many contexts, the agents of their own actions, and (b) that their thoughts about circumstances that they would wish to bring about in the future can be regarded as explanatory antecedents for their subsequent actions (e.g. Harré and Secord, 1972; Thomas, 1972; Shotter, 1975; Heather, 1976; Magoon, 1977).

> *... people's actions are not to be explained causally, as sequences of objective events linked by causal principles, but intentionally. That is, in general, people's actions are to be explained as attempts to help in the realization of projects, goals, enterprises or ideals which they have invented amongst themselves (Shotter, 1975, p.91)*

It was claimed, therefore, that constructs such as *intention, purpose* and *plan* were necessary for an explanation of many human activities, including teaching.

Second, associated with this view was the proposition that much human behaviour should be described as *rule-governed* rather than *law-governed.* Behaviours described as law-governed were perceived as occurring automatically whenever certain circumstances were present. The person could not choose voluntarily whether or not to engage in such behaviours. In contrast, when behaviours were described as rule-governed, regularities were attributed to rules which the person had formulated or accepted, and which specified the goals and actions that they believed would be appropriate when the encountered particular circumstances. As the person might break or amend those rules at any time, the relationship they described between particular circumstances - goals - actions were *probabilistic* rather than cause-effect. It was contended that

> *... the psychologist must concern himself with rule following because an individual person is, by definition, responsible for his actions; in other words, he forms plans and executes them according to rules (Heather, 1976, p23).*

Third, the assumption that there is an objective, external reality which will be interpreted and experienced identically by all observers was challenged by the proposition that people actively *construct* a personal, subjective view of reality and therefore may have similar or dissimilar constructions (meanings) for phenomena they experience. From this point of view, the meaning that an observer attached to someone's actions could not be regarded as inevitably being the meaning that the person or an audience actually had 'in mind' for those actions (e.g. the teacher statement 'That's an excellent answer' will not have invariably been *intended* by the teacher and *perceived* by each pupil as praise). It was argued (e.g. Harré and Secord, 1971; Magoon, 1977) that study of these shared and dissimilar meanings, and the "giving and grasping of meanings", should be central to a science of human behaviour.

This concern that people's personal constructions of reality be taken into account in turn prompted a reappraisal of prevailing views regarding the likely reliability of objective and subjective data. Researchers operating strictly within the positivist stance were unlikely to accept people's reports of their thoughts and feelings as a trustworthy source of data. Those opposing this view claimed that if certain procedures and precautions were used, people's self-reports could be accepted as an accurate, as well as necessary, source of data. Scriven (1972), for example argued;

> *If we can test someone's claim on a very large number of occasions and find him extremely reliable, we have good reason to believe him on other occasions when he testifies about events of a kind that we know to exist even though we cannot check them directly ourselves, that is, unless we know of some pervasive source of error about such testimony that over-rides the prima-facie case we can build up from his usual reliability. (P.96)*

In addition, it was suggested by some (e.g. Heather, 1976, p.27) that if the requirement that observations be truly objective was taken to its logical conclusion, the observer could only report physical characteristics of behaviours. To provide 'intelligible' accounts of the behaviours of people required the observer to take into account their inferred or reported thoughts and feelings.

FINDINGS FROM RESEARCH ON TEACHER THINKING: SOME EXAMPLES AND IMPLICATIONS: Based on the assumptions just outlined, recent studies of teacher thinking have produced findings that have clear implications, I believe, for teacher education. Briefly summarized now are some examples of the findings and their implications that we have taken into account when selecting subject matter and designing learning activities for the Learning and Teaching course. The findings reviewed concern the purpose of lesson planning and the similarities and differences in teachers' plans and planning practices.

Planning before lessons generally serves two ends for teachers. First, it allows them to calmly and rationally contemplate future lessons and to envisage how they might best arrange conditons so as to help pupils learn. Research findings clearly demonstrate that when lessons are underway, teachers usually have too many other competing and inescapable demands on their attention and thinking processes (e.g. listening to and judging the quality of children's responses) to allow them to do justice to large-scale planning. The planning that is done during lessons most typically

involves small-scale 'fine-tuning' or 'filling-in' of the original plan in order to keep the lesson on-course, to increase the odds that learning will occur, or to enrich the quality of the children's learning. Second, before-lesson planning allows teachers to work out ways of arranging conditions so that they will feel relatively secure and free of distress as lessons are underway. This is an understandable concern as stress is a likely accompaniment of work in a situation that is always characterized by complexity, spontaneity, immediacy and uncertainty. If, as an outcome of their planning, teachers know what they might or should do next at any point in a lesson (i.e. the situation is seen to be more predictable or certain) they are less likely to experience undue stress.

While there may be similarities in teachers' responses to the question 'Why Plan?', research findings also indicate that individual teachers may differ significantly in respect to both the 'typical' ingredients of their actual plans and their beliefs about the attributes of a 'good' plan. The factors that account for such differences can be differentiated into two broad categories. In the first are those internal to the teacher. Examples of these factors include commitment to an 'academic' or personally constructed teaching theory; level of tolerance for uncertain situations; assurance in capacity to implement automatically certain teaching actions; knowledge of subject-matter; richness of the repertore of 'possibilities' that can be brought to mind; and attitude towards the activity of planning. A second category encompasses conditions external to the teacher. Examples of these include the time available for both planning and the actual lesson; school organizational constraints; and the availability of material resources.

What are some of the general implications of these findings for teacher education. First, I believe teachers should be encouraged to answer the question 'Why Plan?' and thereby to assess the contribution that before-lesson planning makes to their own mental health as well as their teaching effectiveness. Second, I see a need for teachers to evaluate the reasonableness of their own and other's assumptions concerning the capacity of teachers to 'teach off the cuff and to readily make major changes to plans during lessons. Third, given the importance of planning, teachers need to establish whether they have the resources of time and materials that will enable them to plan in a way that allows both the learners' and their own needs to be met. Fourth, in view of the range and potential impact of factors that may account for similarities and differences in teacher

planning, diversity rather than uniformity in planning practices and plans would seem to be both inevitable and appropriate. This data raises questions as to whether it is possible to prescribe a 'best' approach to planning. My own view is that rather than be offered such prescriptions, teachers should be encouraged to analyze their own planning and the contribution that the factors outlined above may make to them; to self-evaluate the contribution that their plans may make to the successes, difficulties and failures they experience when teaching; and to gather information about and experiment with alternatives to their existing planning practices. Fifth, the advocates of particular teaching approaches need to assess and take into account the demands these may make on teachers' information gathering and processing capabilities. For example, implementing an individualized instruction programme effectively may require teachers to hold in mind much more information than can actually be handled, given the limitations of memory. Finally, I believe that the findings point up the need for advocates of major changes to curriculum or teaching methods to take particular account of teachers' existing theories about teaching (effectiveness). Resistance to change that is sometimes ascribed to teachers' inflexibility or close-mindedness may be quite understandable when there are fundamental conflicts between teachers' established beliefs and those associated with the innovations being promoted. These conflicts may not readily be resolved, particularly when teachers are provided with few opportunities to reflect on the need for change, and to explore their capacity to make the changes in thought and action that would be required.

TEACHER THINKING AND THE LEARNING AND TEACHING COURSE

Consideration of both the conceptual issues and the research findings discussed above has lead us to adopt certain views about the nature of teaching and therefore the subject-matter and learning experiences that we believe essential to a course concerned with teaching and teaching effectiveness. The views adopted, and the manner in which they are introduced to students during the Learning and Teaching course, are now summarized. As indicated in the earlier summary of the course programmed, these views are considered under the theme 'Looking at Teachers'.

Because the introductory session of this phase introduces students to a number of important conceptual issues that set the scene for their study of teaching, its content is outlined here in some detail. Prompted by descriptions of a range of school situations that may/may not represent teaching situations, students are asked to write their own definition of teaching. A sample of these definitions is then displayed and their contrastive features poir d up. As these features are identified, issues that need to be considered when a definition of teaching is formulated are highlighted (e.g. Can someone *make* another person learn?). Once these issues have been noted, the stance taken on them by the course teachers is presented to students accompanied by the rationale that they need to be aware of those views as "they shape the way we approach the task of teaching you about teaching". In the following section, some of the key statements made to students on these issues are presented.

ISSUE 1 TEACHING : THOUGHTFUL V THOUGHLESS

In this course, we take the view that teaching is necessarily a thoughtful activity. It is not an activity that one can engage in accidently (e.g. 'When I look back and think about it now, I must have been teaching'). Rather, we believe that for a person to be engaged in teaching, they must have thoughts in mind about two concerns:

(i) some new learnings that they wish to help someone acquire; and
(ii) a course of action that they will engage in in order to help that person acquire those learnings.

If a person does not have those thoughts in mind - they do not have those intentions - then they cannot be considered to be teaching. They must be engaged in some other sort of activity.

ISSUE II TEACHING : THINKING AND DOING

It follows then that we believe that teaching involves thinking as well as doing - that some of the activities that represent teaching activities can be seen by an observer, whilst others are hidden from view. Thus, when someone is thinking ahead about a prospective lesson - the learnings that they hope someone will acquire - how conditions might best be arranged to help that person learn - we would contend that they are teaching at that moment. Teaching, then, does not only occur when the teacher is in the presence of and is interacting with a learner. It may occur when the teacher is thinking about certain things, but is not outwardly doing anything.

Ultimately, of course, teachers have to do certain things if they are to put their thoughts - their intentions - into effect. They have to engage in observable behaviours. We use the phrase 'arranging conditions' to encompass all of these observable teaching activities. Activities such as asking questions, making and

Continued

continued

displaying charts, moving desks, showing a picture, explaining.

It is important, however, to remember that some of the conditions that may help or hinder learning are not able to be directly arranged by the teacher. For example, the learner's motivational state. At best, the teacher can hope to influence such conditions. Other conditions may not even be able to be influenced. For example, climatic conditions. Such conditions can only be taken into account by the teacher.

ISSUE III TEACHING : CAUSING V FACILITATING LEARNING

Is learning something that the teacher can cause to occur in another person or can the teacher only hope to facilitate learning? This issue surfaces when we ask the question 'Can you make someone learn? Our response to that question is NO. The response is based on the view that within any teaching-learning situation, at any moment of time, a learner can give or withhold their consent to engage in learning - just as at this moment, I can choose to teach or not to teach.

It is accepted that learners must attend to certain stimuli if they are to be helped to learn. And yet, the reality is that we cannot control the attention of another person...Physical bodies can be held captive, but not minds...Pupils can, as a deliberate act, resist our best-intentioned and most skilful attempts to arrange conditions in order to attract and maintain their attention.

We can only arrange conditions so that there will be a good probability that learning will occur. There can never be complete certainty, however, that learning will occur.

ISSUE IV TEACHING - EFFECTIVE TEACHING - EDUCATIVE TEACHING

In defining teaching, we have to decide whether teaching can be held to have occurred only if the teacher has arranged conditions in certain ways and/or has intended to facilitate certain learnings
OR
whether teaching can be held to have occurred regardless of the way conditions have been arranged by the teacher or the types of learnings that the teacher has intended to facilitate. The latter, neutral stance is adopted in this course.

We take the view that when a definition of teaching includes statements expressing the view that only certain ways of arranging conditions are likely to facilitate learning, the person is in fact stating their beliefs about the nature of effective teaching. Similarly, when a definition specifies the learnings that the person regards as 'good', we consider that they are stating their beliefs about the nature of educative teaching.

This summary of our views leads to the presentation of the formal course definition of teaching:

> 'Teaching is taking account of, trying to influence and arrange conditions with the intention of facilitating learning in someone.'

This introductory session concludes with a review of the covert and overt activities of teaching as a means of highlighting the aspects of teaching that we believe must be considered in order to do justice to a study of teaching.

Teaching involves the teacher in -	Understanding teaching requires us to study -
1. deciding on new learnings that it would be appropriate/desirable for the learner to acquire;	a.-the sorts of learnings teachers believe are appropriate/desirable for learners to acquire;
2. taking account of the conditions that might help/hinder attempts to facilitate learning;	b.-the conditions that teachers consider make certain learnings appropriate, may help/hinder their attempts to facilitate these learnings;
3. formulating a 'plan of action' specifying how conditions might be arranged in order to facilitate learning;	c.-the conditions teachers envisage trying to arrange -the arrangements they plan to make, -why teachers choose to arrange conditions in particular ways;
4. implementing teaching plans, sometimes with modifications being made to plans;	d.-what happens to plans when teachers set out to implement them, -the relationship between plans and the actualities of lessons -the modifications teachers make to plans, -reasons for plan modifications;
5. monitoring and evaluating the extent to which teaching intentions/plans are being successfully realized/implemented.	e.-what teachers monitor as lessons are underway, -how evaluations are made, -factors influencing the ease/difficulty of monitoring and accurately evaluating teaching and learning.

In order to explore further with students the issues raised in this initial presentation, the following teaching-learning activities are undertaken during the remainder of the 'Looking at Teachers' phase.

(a) Having made a 'stream of consciousness' record of their planning thoughts for a prescribed lesson, students analyze this record in order to identify examples of the conditions that teachers may take into account, try to influence and arrange in teaching-learning situations.

(b) Drawing on this planning record data, a generic model of the teaching-learning situation is constructed (see Figure 1,p.19) In the process of formulating the model, two general issues are raised and discussed:

(i) How much control - influence do teachers actually have over particular conditions that may help or hinder learning?

(ii) Can the model be regarded as a checklist of aspects of teacher-learning situations that teachers should ideally think about prior to and in the course of all lessons? This question introduces such issues as the limitations on teachers' information-processing capabilities and the 'ratio of reflex and reflection' in teaching.

(c) A comprehensive review of the findings that emerged from recent studies of teacher thinking is presented and the implications of those findings, in the context of teachers' efforts to become more effective, are discussed. The general topics covered include:

(i) the reasons why teachers think ahead about and make plans for lessons;

(ii) Examples of and reasons for similarities and differences in teacher planning and plans;

(iii) The purpose of and constraints on within-lesson planning;

(iv) Difficulties teachers may confront in gathering evidence of learning and accounting for teaching successes, problems and failures.

(d) Points raised during this review and discussion are further highlighted and illustrated through an analysis and comparison of the pre-and within-lesson thoughts of several students who have planned for and taught micro-lessons. Factors that might account for contrastive features of the teachers' thoughts are identified and discussed.

(e) This phase of the course culminates in an examination of the teacher effectiveness issue. This is introduced by a survey of the objectives and findings of the last three decades of research on teacher effectiveness. Having noted the inconclusiveness of much of the research, together with some of the possible reasons for this state of affairs, the course response

to the teacher effectiveness dilemma is presented to students.

(f) As a follow-up to this presentation, students undertake an activity that is intended to help them (a) understand why it is difficult for one teacher to judge the effectiveness of another teacher, and (b) to uncover and share their personal theories about teaching (effectiveness). Thus, in response to both video-tape and written 'critical teaching incidents' students are asked to describe their perceptions of the incidents and to indicate the response that they believe they would make if the teacher in that critical situation. When subsequently describing their perceptions to other students, they attempt to identify factors that might account for similarities and differences in their perceptions and consider the implications these might have in the context of their evaluation of someone else's teaching. Throughout the discussion, students are encouraged to explain the beliefs that they currently hold about teaching and that have influenced their response to these incidents.

CONCLUSION

This paper has presented a case for the view that 'there is more to teaching than meets the eye', and that the more - the mental life of teachers - should be regarded as essential subject matter for a course concerned with teaching and teacher effectiveness. It has also described the strategy employed to introduce students to this case and then to help them explore and reflect on aspects of their own and others' mental life as teachers.

Feedback from students, concerning the value of the phase of the course in which this aspect of teaching receives particular attention, indicates that for many students the pay-off takes the form of a personal reconceptualization of teaching and its relationship with learning. Thus, their comments include, 'Formed new attitudes - insights into why teachers do what they do'; 'cleared up in my mind the question - what is teaching and where is it done?'; 'made me think more deeply about the teacher role and how he/she affects the pupil learning and how he/she may not be fully responsible for the learner's learning'; 'the planning required for even the smallest lesson - I didn't really see it that way'; 'didn't really acknowledge that teacher cannot cause learning to take place'; 'the fact that one had to clarify, define one's <u>own</u> views towards teaching'.

Whilst these responses have certainly helped reassure us that the

stance and approach that we have adopted is sound, feedback from students has also pointed up the need for us to reassess some aspects of our own teaching strategy. For example, it appears that some students would like much more time to share their views about some of the conceptual issues raised during this phase. In this regard, the lecture mode that has been used to introduce key ideas is probably not the most effective. Existing time constraints have also meant that only a limited number of students have the opportunity, within the course itself, to look closely at their own thoughts, as well as actions, in the context of micro-teaching sessions. Students understandably value opportunities to assess the merit of new ideas through their own 'practical' experiences. As is probably typical of such introductory courses, however, there is a constant tension between meeting demands for scope, depth and application in dealing with the subject matter.

Although it is clearly possible to make modifications to the existing course to meet some of the needs that students have expressed, one factor remains that would seem to impose a substantial limitation on the course's potential effectiveness. That factor, referred to at the outset of the paper, is the lack of consensus between courses in the overall programme at Waikato concerning the objectives for any course that sets out to help teachers become more effective. The tension that induces is also, however, unlikely to be resolved readily and one must raise the question 'Is it inherently a bad thing?' There may be as many dangers in presenting students with a complete consensus of views as there is in presenting them with conflicting views. The latter may in fact represent an acceptable option, particularly if we can during a course such as the one described in this paper, go some way to helping students become their own theorists and researchers on teaching and teaching effectiveness.

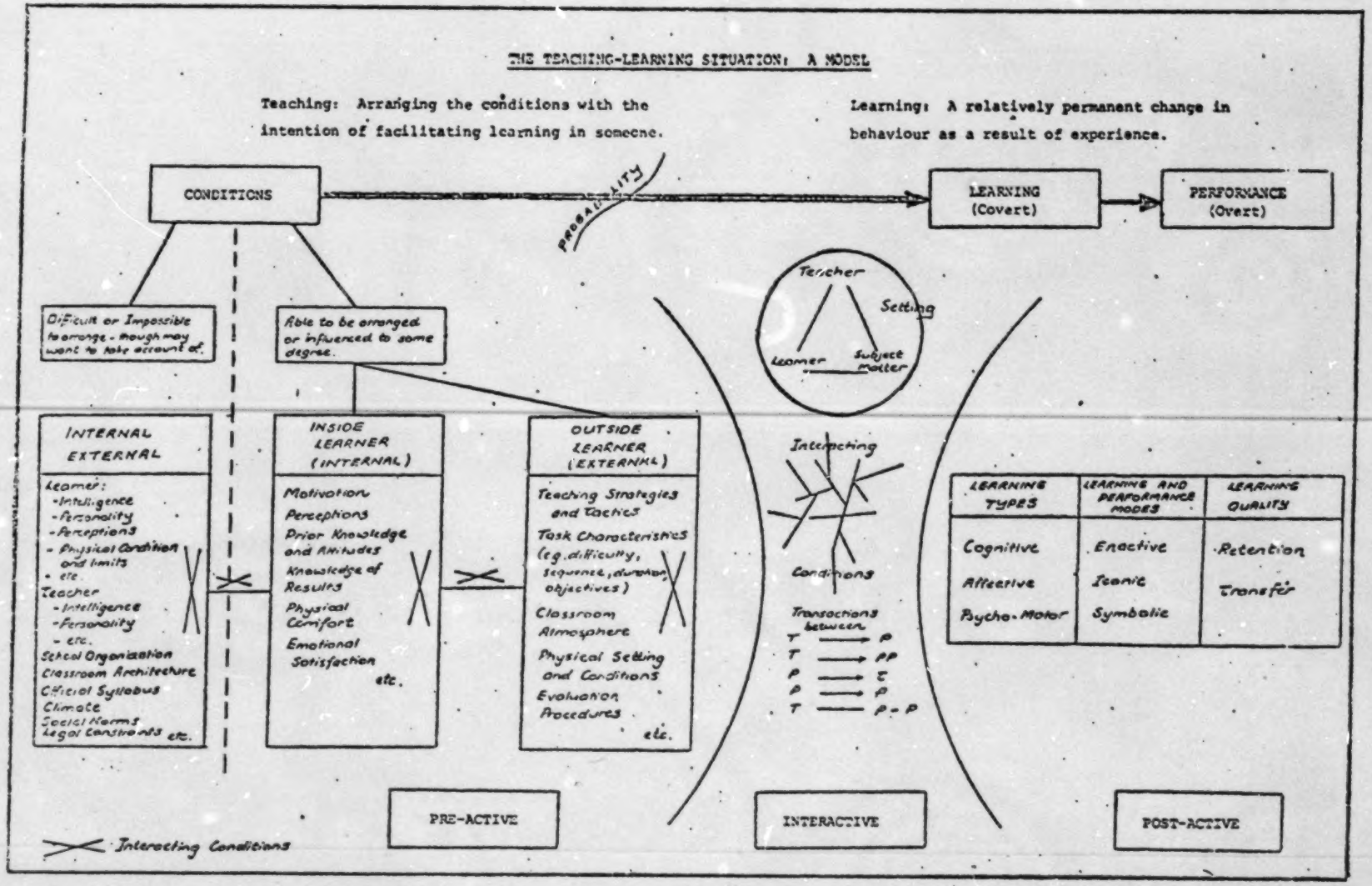

FIGURE 1: The Teaching-Learning Situation : A Model

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